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10/772,508	02/05/2004	Ho-Yeon Lee	678-1162	6896

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EXAMINER	
SHARMA, SUJATHA R	
ART UNIT	**PAPER NUMBER**
2618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/772,508	LEE, HO-YEON	
	Examiner	Art Unit	
	Sujatha Sharma	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/10/07*.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6 and 8-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6 and 8-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3,5,6,15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chun [US 2002/0068586] and Virtanen [US 6,249,681] in view of Kim [US 6,343,216]

Regarding claims 1,15 Chun discloses a method of reconnecting a dropped call in mobile communication system. Chun further discloses a method comprising the steps of:

- storing call information used during initial call setup; see page 1, paragraph 8
- automatically reconnecting the dropped call based on the stored call information, if the call drop is determined to be unintentional. see page 1, paragraph 8

Chun, however is silent to disclose a method wherein the call information is stored in the base station, which is then used for a call reconnection in the event of a dropped call.

Virtanen, in the same field of endeavor, teaches a method wherein the call information is stored in the base station, which is then used for a call reconnection in the event of a dropped call. See col. 1, lines 11-15 and col. 18, lines 10-15

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Virtanen to Chun in order to provide a more flexible call reestablishment procedure.

However, Chun as modified by Virtanen fails to disclose a method of determining, if call drop occurs during the setup call, whether an order identifier of an order message indicating call end occurring due to the call drop, was set to a value previously agreed upon between the mobile communication terminal and a base station, i.e., a value indicating the call end using the call information, and whether the call drop was unintentional call drop.

Kim, in the same field of endeavor, teaches a method of determining, if call drop occurs during the setup call, whether an order identifier of an order message indicating call end occurring due to the call drop, was set to a value previously agreed upon between the mobile communication terminal and a base station, i.e., a value indicating the call end using the call information, and whether the call drop was unintentional call drop. See col. 3, lines 5-8, fig. 2, col. 5, lines 39-67

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Kim to modified Chun in order to reduce the ambiguity of a call being terminated unintentionally and thus efficiently establish the process of reconnect the dropped call.

Regarding claim 2,16 Chun discloses a method wherein the determining step determines that unintentional call drop has occurred if an air message is not received for a valid waiting time previously set in one of a first terminal and a base station. See page 4, paragraphs 74,75

Regarding claim 3, Chun discloses a method wherein the automatically reconnecting step further comprises:

a) generating a message for providing notification of the unintentional call drop by one of a first terminal and a base station and transmitting the generated message to the other of the first terminal and the base station; See col. 5, lines 24-32

- generating an origination message for automatic reconnection of the dropped call using the call information stored by the mobile communication terminal upon receiving notification; See col. 1, lines 36-48 and col. 3, lines 5-8, fig. 2, col. 5, lines 39-67

b) transmitting the generated origination message from the mobile communication terminal to the base station; see col. 4, lines 5-36, col. 5, lines 24-

c) receiving, by the first terminal, channel information for automatic reconnection of the dropped call from the base station, and setting up a traffic channel based on the received channel information; see page 4, paragraph 78 and page 5, paragraphs 87, 88

d) connecting the dropped call using the traffic channel. see page 4, paragraph 78 and page 5, paragraphs 87, 88

Regarding claim 5, Chun discloses a method comprising receiving a user's approval for automatic connection of the previous call by the first terminal. see page 3, paragraph 50; page 4, paragraph 77 and page 5, paragraph 85. Since mobile terminal is requesting for the reconnection it is obvious that the mobile terminal has approved the reconnection of the call.

Regarding claim 6, Chun discloses a method wherein the automatically reconnecting step further comprises the steps of:

- generating a message for providing notification of unintentional call drop by one of the first terminal and the base station, and transmitting the generated message to another of the first terminal and base station. see page 3, paragraph 58; page 4, paragraph 76
- assigning a traffic channel for automatic reconnection of the dropped call by the base station using the stored call information, upon receiving the generated message for providing notification; see page 4, paragraph 78 and page 5, paragraphs 87, 88
- transmitting by the base station the traffic channel to all mobile communication terminals by the base station; see page 4, paragraph 78 and page 5, paragraphs 87, 88
- reconnecting the dropped call using the traffic channel. see page 4, paragraph 78 and page 5, paragraphs 87, 88

Regarding claim 17, Chun discloses a method wherein the automatically reconnecting step further comprises:

- generating a message for providing notification of the unintentional call drop by one of the mobile communication terminal and the base station, and transmitting the generated message to an other party; see page 3, paragraph 58; page 4, paragraph 76
- receiving a generated origination message for automatic reconnection of the previous call using the call information from the mobile communication terminal; see page 3, paragraph 50; page 4, paragraph 77 and page 5, paragraph 85

- assigning a traffic channel for the automatic reconnection of the previous call based on the received origination message; see page 4, paragraph 78 and page 5, paragraphs 87, 88
- reconnecting the dropped call using the traffic channel. see page 4, paragraph 78 and page 5, paragraphs 87, 88

Regarding claim 18, Chun discloses a method comprising receiving a user's approval for automatic connection of the previous call by the mobile communication terminal. see page 3, paragraph 50; page 4, paragraph 77 and page 5, paragraph 85. Since mobile terminal is requesting for the reconnection it is obvious that the mobile terminal has approved the reconnection of the call.

Virtanen, in the same field of endeavor, teaches a method wherein the call information is a phone number of a previously called party and a service option of the previous call. See col. 10, lines 1-13 and col. 15, lines 35-39.

3. Claims 8-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chun [US 2002/0068586] in view of Virtanen [US 6,249,681].

Regarding claim 8, Chun discloses a method of reconnecting a dropped call in mobile communication system. Chun further discloses a method comprising the steps of:

- storing call information used during initial call setup; see page 1, paragraph 8
- determining, if call drop occurs during a call using the call information, whether the call drop is an unintentional call drop; See page 2, paragraph 42

- automatically reconnecting the dropped call based on the stored call information, if the call drop is determined to be unintentional. see page 1, paragraph 8

Chun, however is silent to disclose a method wherein the call information is stored in the base station, which is then used for a call reconnection in the event of a dropped call.

Virtanen, in the same field of endeavor, teaches a method wherein the call information is stored in the base station, which is then used for a call reconnection in the event of a dropped call. See col. 1, lines 11-15 and col. 18, lines 10-15

Therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made to provide the above teachings of Virtanen to Chun in order to provide a more flexible call reestablishment procedure.

Regarding claim 9, Chun discloses a method wherein the determining step determines that unintentional call drop has occurred if an air message is not received for a valid waiting time previously set in one of a mobile communication terminal conducting the call and a base station controlling the call. See page 4, paragraphs 74,75

Regarding claim 10, Chun discloses a method wherein the automatically reconnecting step further comprises:

- generating a message for providing notification of the unintentional call drop and transmitting the generated message to the first terminal; see page 3, paragraph 58; page 4, paragraph 76

- receiving a generated origination message for automatic reconnection of the previous call using the call information from the first terminal; see page 3, paragraph 50; page 4, paragraph 77 and page 5, paragraph 85
- assigning a traffic channel for the automatic reconnection of the previous call based on the received origination message; see page 4, paragraph 78 and page 5, paragraphs 87, 88
- reconnecting the dropped call using the traffic channel between the first and second terminals. see page 4, paragraph 78 and page 5, paragraphs 87, 88

Regarding claim 10, Chun discloses a method wherein step (b) comprises receiving a user's approval for automatic connection of the previous call by the mobile communication terminal. see page 3, paragraph 50; page 4, paragraph 77 and page 5, paragraph 85. Since mobile terminal is requesting for the reconnection it is obvious that the mobile terminal has approved the reconnection of the call.

Regarding claim 11, Chun discloses a method wherein step (a) comprises setting an order identifier (ORDQ) of a release order message indicating call end at a value previously agreed between the first terminal and the base station. See page 3, paragraphs 47,48

Regarding claim 12, Chun discloses a method comprising receiving a user's approval for automatic connection of the previous call by the mobile communication terminal. see page 3, paragraph 50; page 4, paragraph 77 and page 5, paragraph 85. Since mobile terminal is

requesting for the reconnection it is obvious that the mobile terminal has approved the reconnection of the call.

Regarding claim 14, Virtanen discloses a method wherein the call information is a phone number of a previously called party and a service option of the previous call. See col. 10, lines 1-13 and col. 15, lines 35-39.

Response to Arguments

4. Applicant's arguments with respect to claims 1-3,5,6,8-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sujatha Sharma whose telephone number is 571-272-7886. The examiner can normally be reached on Mon-Fri 7.30am - 4.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sujatha Sharma
October 11, 2007